# Chapter 4 Planning Context

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# Introduction

Information on the characteristics of the City's population, population growth rate, and income levels are essential in planning for future community needs such as schools, public utilities, recreation facilities, police protection, emergency services, human services, and housing.

Chapters within the Comprehensive Plan utilize data from previous plans and from the U.S. Census Bureau and other population studies. This chapter includes information from several sources including past U.S. Census data, the U.S. Census Bureau's American Community Survey (ACS), the University of Virginia's Weldon Cooper Center, the Virginia Employment Commission, and others as noted.

It is important to note that the City's population characteristics are greatly affected by the presence of two institutions of higher learning—Eastern Mennonite University (EMU) and James Madison University (JMU). The large numbers of college-aged residents within the City skew some of the City's demographic characteristics, such as age distribution and personal income. Therefore, demographic comparisons with non-college communities are of little help, thus this chapter focuses instead on other college communities within this general region of Virginia.

# **Population Characteristics**

### **Population Growth**

In 1900, there were 3,521 people within the City. Over the next half-century, the population increased slowly, but steadily. During the 1970s, the City experienced its first major modern surge of growth, with the population increasing by 34.7 percent to 19,671. This accelerated rate of growth coincided with a major increase in enrollment at JMU and continued through the 1980s, assisted by a major annexation in 1983 that added 11.4 square miles (and an estimated 5,729 persons). During the 1980s, the City experienced its largest ten-year population increase, a substantial 56 percent, due mostly to the annexation in 1983. Growth continued during the 1990s, when the population increased by 31.8 percent, to a 2000 population of 40,453, according to the U.S. Census of Population. (The 40,453 population represents the "corrected" 2000 Census number.) The April 2010 U.S. Census of Population revealed continued growth for the City with a population of 48,914. The Weldon Cooper Center estimates the City's 2017 population at 54,689. The Historical Growth Map at the end of this chapter illustrates the land areas added to the City during each annexation.

Table 4-1. Harrisonburg Population Change, 1900-2017

Year	City Size	Population	Number Change	Percentage Change
	(Acres)			
1900	<sup>+</sup> 1,577	3,521		
1910	† <b>1,</b> 577	4,879	1,358	38.6%
1920	† <b>1,</b> 577	5,875	996	20.4%
		/		
1960	<sup>+</sup> 1,863	11,916	6,041	102.8%
1970	3,828	14,605	2,689	22.6%
1980	3,828	19,671	5,066	34.7%
^1990	11,132	30,707	11,036	56.1%
2000	11,132	40,453	9,746	31.7%
2010	11,132	48,914	8,461	20.9%
2017	11,132	54,689	*5,775	*11.8%

Source: U.S. Census Bureau; Weldon Cooper Center for Public Service July 1, 2017 dataset published January 25, 2018; \*Estimate of City size based on Geographic Information System (GIS) data from Department of Planning & Community Development

^Includes 5,729 persons added as a result of a 1983 annexation

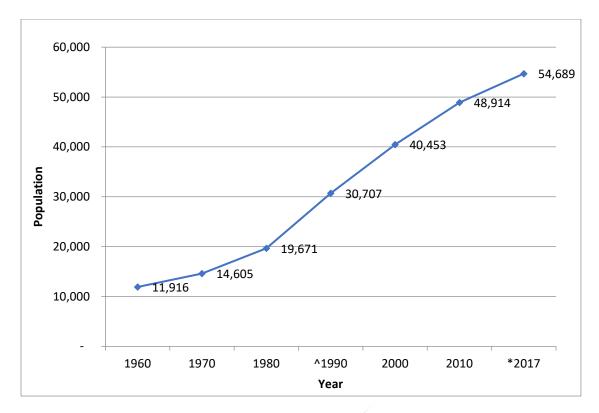


Figure 4-1. Harrisonburg Population Change, 1970-2017

Source: U.S. Census of Bureau, \* Weldon Cooper Center for Public Service July 1, 2017 dataset published January 25, 2018; ^Includes 5,729 persons added as a result of a 1983 annexation

Table 4-2. Population Comparison, City of Harrisonburg, Rockingham County, and Virginia

	2000 Census	2010 Census	2017 Weldon Cooper Estimate	2020 Weldon Cooper Projection
City of Harrisonburg	40,453	48,914	54,689	58,687
<b>Rockingham County</b>	67,714	76,314	80,666	81,624
Virginia	7,079,030	8,001,024	8,470,020	8,744,273

Source: U.S. Census Bureau; Weldon Cooper Center for Public Service July 1, 2017 dataset published January 25, 2018

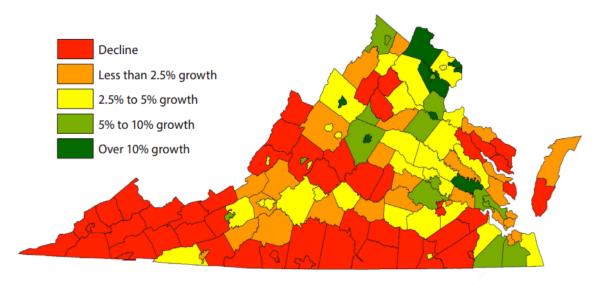


Figure 4-2. Virginia Population Change 2010 to 2015

Source: Weldon Cooper Center for Public Service

Population growth within a community results from a combination of the population's natural increase (births minus deaths) and migration patterns (people entering and leaving the community). While the rate of natural increase is not generally affected by government policy, migration patterns can be influenced by housing and job opportunities within a community, which in turn are affected by local government land use, housing, and economic development policies. In the City's case, migration is also affected by the student, staff, and faculty growth of EMU and JMU.

Table 4-3 below illustrates trends in the components of population growth from 1980 to 1990, 1990 to 2000, 2000 to 2010, and the years 2010 to 2016. This data confirms that migration of people into the City has outpaced the natural increase in the population since the 1980s decade.

Table 4-3. Harrisonburg Components of Population Change, 1980-2017

	Change in Population	Natural Increase*	Percent Natural	Migration	Percent Migration
1980- to 1990	11,036 **	678	6.1%	10,358	93.9%
1980 without 1983 annexation	5,307	678	12.8%	4,629	87.2%
1990 to 2000	9,761	1,180	12.1%	8,581	87.9%
2000 to 2010	8,461	2,539	30.0%	5,922	70.0%
2010 to 2017^	5,775	1,997	34.5%	3,778	65.4%

Sources: U.S. Census Bureau; ^ Weldon Cooper Center for Public Service July 1, 2017 dataset published January 25, 2018; \*Net of births minus deaths; \*\*1983 annexation added 5,729 persons to the City

#### Age and Sex

The U.S. Census of Population and the ACS collect information on a wide variety of population characteristics, such as age distribution, education, and income. The City's age structure is one of the most obvious population characteristics affected by the university populations. Figure 4-3 below breaks down the age group distribution by sex. Note the large percentage of the population in the 15-24 age group, which includes most college students. The figure demonstrates there are 27,122 females and 24,857 males that live within the City limits. Males outnumber females throughout most of the age groups except the 15-24 and the 65+ age groups, where females outnumber males by more than 3 percent in both categories. The below numbers are estimates for 2017 and it should be noted that as of the Fall 2017, 60 percent of the JMU student population is female.

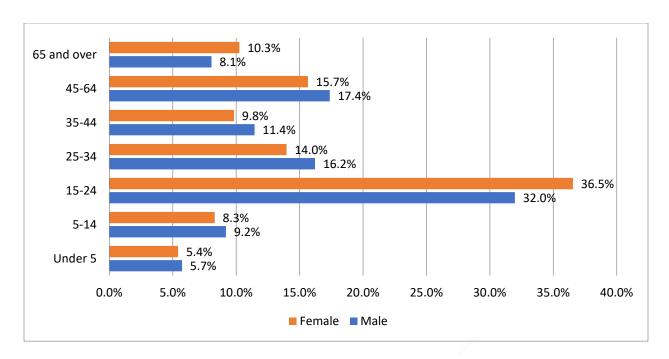


Figure 4-3. Harrisonburg Population by Age and Sex, 2016

Source: U.S. Census Bureau, Population Division, data set July 1, 2017

According to the Weldon Cooper Center, the City's median age is estimated for 2017 to be 25.8 years compared to Rockingham County's at 41.2 years. The City is similar to Charlottesville (at 31.4 years), which is a college city.

# **Population Diversity**

Harrisonburg, like most U.S. cities, is becoming more diverse as the country's overall diversity increases.

Table 4-4 provides diversity statistics for the City from the 1990 Census through the 2010 Census, and 2016 ACS. This table also compares the City's data to Rockingham County and Virginia.

Table 4-4. Diversity Characteristics in Harrisonburg, Rockingham County, and Virginia, 2012-2016

	Harrisor	nburg							Rockingham County	Virginia
Race*	1990		2000		2010		2016 AC	S 5-yr	2016 A	ACS 5-yr
White	27,968	91.1%	35,241	87.1%	39,682	81.1%	45,302	87.2%	95.3%	71.6%%
Black or African American	2,018	6.6%	2,726	6.7%	3,680	7.5%	4,475	8.6%	3.0%	20.8%
American Indian & Alaskan Native	37	0.1%	190	0.5%	337	0.7%	370	0.7%	0.7%	1.0%
Asian	469	1.5%	1,652	4.1%	2,206	4.5%	2,661	5.1%	0.9%	7.3%
Native Hawaiian/Pacific Islander			44	0.1%	116	0.2%	59	0.1%	0.0%	0.2%
Other race	215	0.7%	1,725	4.3%	4,476	9.2%	948	1.8%	1.6%	2.7%
Hispanic or Latino^	481	1.6%	3,580	8.8%	7,665	15.7%	9,452	18.2%	6.2%	8.7%
Total	30,707		40,468		48,914		51,979			

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

<sup>\*</sup>Race alone or in combination with one or more other races listed. The race percentages may add to more than 100 percent because individuals may report more than one race. \*\*The Asian and Native Hawaiian/Other Pacific Islander categories were combined in 1990. ^The 2000 "uncorrected" population totals are used for the Hispanic or Latino of any race because the U.S. Census Bureau did not correct the counts for Hispanic origin.

As demonstrated by Table 4-4, the City's population remains predominately white, but still more diverse than Rockingham County. When one compares the City's population percentage of Hispanic/Latinos to that of the Commonwealth's, the City's percentage is more than two times the amount of Virginia's. However, the Commonwealth's population percentage of Black/African American citizens is almost 2.5 times the amount of Harrisonburg's.

As noted above, the City has a fairly diverse population, and with that, varieties of cultures and languages are present in the school system. Based upon data from Harrisonburg City Public Schools (HCPS), in September 2017, 35 percent of students were enrolled and designated as Limited English Proficient (LEP). (Note: The terms English Learners (ELs), English as a Second Language (ESL), and Limited English Proficiency (LEP) are used interchangeably.) There are 57 languages represented from 53 different countries (including the U.S.), and as shown in Table 4-5 below, there are 2,077 registered LEP students out of a total school enrollment of 5,988. Spotswood elementary school has the largest LEP percentage at 49 percent while Thomas Harrison Middle School has the lowest percentage at 22 percent. Having such high numbers of LEP students in the City could increase the costs for services; yet, opportunities abound for having many students with global perspectives that can enrich the City's cultural environment.

Table 4-5. Limited English Proficiency (LEP) Enrollment – Harrisonburg City Public Schools,
Number. Percentage. & Total by School and Grade. September 2017

					3 6 2 7 3 2		School ar			LEP	Grade	
Cuada	DEC	KEC	CDAFC	CEC	SSES	WES	CVNAC	TURAC	11116	Enroll -ment	Enroll- ment	% LEP
Grade K	BES 43	KES 27	SMES 34	SES 31	34	32	SKMS	THMS	HHS	201	496	41%
1	51	16	47	43	30	38				225	474	47%
2	52	14	48	46	40	36				236		51%
			_	_	_						464	
3	43	27	44	42	36	40				232	457	51%
4	48	19	46	31	28	33				204	491	42%
5	20	20	20	30	24	32				131	469	28%
6							57	56		113	475	24%
7							54	43		97	427	23%
8							66	53		119	457	26%
9									141	141	468	30%
10									142	142	439	32%
11									103	103	425	24%
12									133	133	446	30%
LEP Enroll- ment	257	123	239	223	192	195	177	152	519	2,077		
School Enroll- ment	565	314	556	454	464	498	675	684	1778		5,988	
% LEP	45%	39%	43%	49%	41%	39%	26%	22%	29%		·	35%

Source: Harrisonburg City Public Schools September 2017

KEY: BES= Bluestone Elementary; KES=Keister Elementary School; SES=Spotswood Elementary School; SSES=Stone Spring Elementary School; WES=Waterman Elementary School; THMS=Thomas Harrison Middle School; HHS=Harrisonburg High School

At the time of the writing of this chapter, the 2016 ACS was the most recent, comprehensive data available to demonstrate foreign born residents. The data collected includes information on the region/country of birth of the City's foreign-born population, as well as the different languages spoken in households, which provide additional details on the City's diversity. According to the ACS, in 2016 Harrisonburg's foreign-born population numbered 8,617 persons (16.5 percent of the population), which increased from 3,733 persons (9.2 percent of the population) in 2000. (Note: No data on foreign-born population is available for 2010.)

- Table 4-6 summarizes the place of birth for the City's foreign-born residents using the 2016 ACS data.
- 41 Every populated continent was represented within the City's population.

Table 4-6. Region/Country of Birth of Foreign-Born Population, Harrisonburg, 2012-2016

	Number	Percent of Foreign-Born	Percent of Harrisonburg Total
Europe	796	9.2%	1.5%
Asia	2,520	29.2%	4.8%
Africa	382	4.4%	0.7%
Oceania	-	0.0%	0.0%
Latin America	4,818	55.9%	9.2%
North America	101	1.2%	0.2%
Total	8,617		51,979

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

#### Income

Measures of personal and family income provide an indication of the general economic well-being of the population. The latest statistics on income are provided by the ACS in Table 4-7, which indicate the City's median household, family, and per capita income for 2016 (5-year estimate).

College towns and small cities frequently appear to have high poverty rates, often inflated due to the presence of students in the population who earn lower wages because they are in school and not working full-time. Statistics in Table 4-7 are also provided for comparison purposes for Rockingham County, Charlottesville, and Virginia. The City of Charlottesville is included for comparison because, as with Harrisonburg, its income statistics are affected by the college-aged population base. (Additional information on poverty rates is provided later in this chapter.)

Table 4-7. Income for Households, Families and Individuals in Harrisonburg, Rockingham County, Charlottesville, and Virginia, 2012-2016

	Harrisonburg	Rockingham County	Charlottesville	Virginia
Median Household Income	\$40,494	\$55,029	\$50,727	\$66,149
Median Non-Family Household Income	\$25,766	\$32,312	\$36,178	\$40,812
Median Family Income	\$55,073	\$63,030	\$72,855	\$80,068
Per Capita Income	\$18,892	\$27,1612	\$30,729	\$34,967

Source: U.S. Census Bureau, American Community Survey, 2012-2016 5-year Estimate

The Census Bureau defines a "household" as all persons who occupy a housing unit, and a "family" as a household consisting of one or more persons who are related by birth, marriage, or adoption. One example of a non-family household in the City would include several college students living together in an off-campus housing unit. Since many households consist of only one-person, median household income is usually less than median family income. "Median" means that half of the households make more than this figure and half make less.

Figure 4-4 below demonstrates, more specifically, the City's percentage breakdown of its household income by particular income brackets.

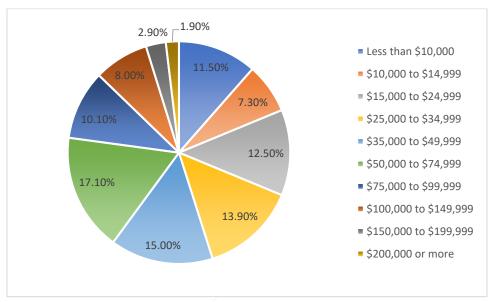
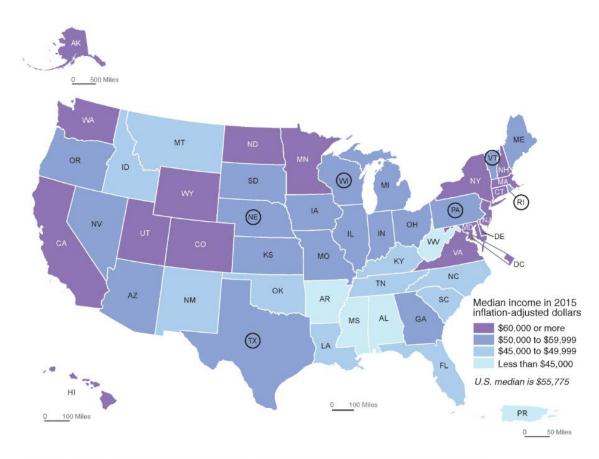


Figure 4-4. Harrisonburg Income Bracket Percentages, 2012-2016

Source: U.S. Census Bureau, American Community Survey, 2012-2016 5-year Estimate

As shown in Figure 4-5, the Commonwealth's median household income in 2015 was higher than the U.S. median. At the same time, the City's median household income was lower than the U.S. average.



 $Note: A \ state \ abbreviation \ surrounded \ by \ the \ "O" \ symbol \ denotes \ the \ value \ for \ the \ state \ is \ not \ statistically \ different \ from \ the \ U.S. \ median.$ 

Figure 4-5. U.S. Median Household Income, 2015

Source: U.S. Census Bureau, American Community Survey, 2011-2015 (5-year estimate)

#### **Poverty**

The U.S. Census Bureau uses income thresholds that vary by family size and composition to determine who meets the definition of being in poverty. There is only one set of "poverty thresholds" for the entire country, which is updated annually for inflation using the Consumer Price Index. The official poverty definition counts money income before taxes, excluding capital gains and noncash benefits, such as public housing, Medicaid, and food stamps. The U.S. Census Bureau publishes poverty thresholds each year by size of family and number of related children (under 18 years) ranging from one person to a family with nine or more people. The 2017 weighted average poverty threshold for one person is \$12,488, for a household with two people under age 65 without children is \$16,414, and for a household with four people is \$24,858 including two children. These values are not regional, but are for the entire United States.

Significantly for the City, poverty is not defined for people in institutional group quarters, including college dormitories and older adults living in nursing homes or residential hospitals. They are excluded from the information collected on poverty and are considered neither "poor" nor "nonpoor." Nevertheless, the presence of students and recent graduates of area colleges and universities who are living off-campus and Chapter 4, Planning Context, page 4-12

working at entry level wages can be expected to affect the poverty statistics for non-family households within a college town.

Table 4-8 provides percentage estimates of people within the limits of the City whose income is below the poverty threshold. Notice that the City's percentages are higher than those for Rockingham County and for the Commonwealth of Virginia but similar to the City of Charlottesville's. As noted above, this can be attributed mainly to the City's college-aged demographic.

Table 4-8. Percentage of People Whose Income is Below the Poverty Threshold in Harrisonburg, Rockingham County,
Charlottesville, and Virginia, 2012-2016

	Harrisonburg	Rockingham County	Charlottesville	Virginia
All People	33.1%	11.6%	25.9%	11.4%
Under 18	25.1%	17.0%	21.8%	15.1%
18 to 64	37.8%	10.5%	28.8%	10.9%
65 and over	9.9%	8.5%	10.0%	7.6%

Source: U.S. Census Bureau, American Community Survey, 2012-2016 5-year Estimate

The change in poverty levels of families in Harrisonburg, Rockingham County, Charlottesville, and Virginia between 2010 and 2016 are demonstrated in Table 4-9.

Table 4-9. Change in Poverty Levels 2009 to 2015 in Harrisonburg, Rockingham County, Charlottesville, and Virginia, 2012-2016

	2009	2016	Percent Change
Harrisonburg	33.7%	33.1%	1.2%
Rockingham	10.3%	11.6%	13.7%
County			
Charlottesville	26.6%	25.9%	-4.4%
Virginia	10.3%	11.4%	10.6%

Sources: U.S. Census Bureau, American Community Survey, 2007-2009 Estimate and 2012-2016 5-year Estimate

The 2012-2016 ACS, estimated that of the 33 percent of people in poverty, that 25 percent of related children under 18 were below the poverty level, compared to 10 percent of people 65 years old and over. An estimated 15 percent of all families and 31 percent of families with a female householder and no husband present had incomes below the poverty level.

A University of Virginia publication titled "Poverty and postsecondary students in college towns," published in March 2016, calculated a modified poverty rate among non-student residents by using poverty status by school enrollment data published by the Census Bureau, which allowed the removal of all students enrolled in undergraduate and graduate programs from a locality's population. This is shown in Table 4-10.

Table 4-10. Comparison of Overall Poverty Rate to Non-Postsecondary Student Poverty Rate, 2015

	Overall poverty rate	Non- Postsecondary Student Poverty Rate
Harrisonburg	32.5%	15.3%
Charlottesville	27.5%	14.8%
Lynchburg	24.6%	19.9%
Montgomery County	25.6%	12.5%
Virginia	11.5%	N/A

Source: University of Virginia, "Poverty and postsecondary students in college towns," March 2016

Another measure of poverty is the Federal Poverty Level (FPL). FPL is a measure of income issued every year by the Department of Health and Human Services (HHS). FPLs are used to determine individuals' and families' eligibility for certain programs and benefits, including savings on Marketplace health insurance, and Medicaid and Children's Health Insurance Program (CHIP) coverage. The United Ways of Virginia ALICE (Asset Limited, Income Constrained, Employed) Study of Financial Hardship report describes that the FPL "is no longer a realistic measure of financial hardship in households across each county in the U.S." and that the official poverty level is understated. The United Way ALICE report created the ALICE Threshold, which they describe as a more realistic measure that estimates the minimal cost of the five basic necessities – housing, child care, food, transportation, and health care. The average Household Survival Budget, which identifies the minimum cost option for each of the five basic household items to live and work in today's economy, for a four-person family living in Virginia is \$61,068 – more than double the FPL of \$24,250 per year for the same size family.

<sup>&</sup>lt;sup>1</sup> The United Way ALICE report states: "Developed in 1965, the FPL no longer reflects actual current cost of basic household necessities. Its methodology has not been updated since 1974 to accommodate changes in the cost of living overtime, nor is it adjusted to reflect cost of living differences across the country."

Table 4-11. ALICE Threshold for Households (HHs), 2015

County	Total HHs	HHs Below ALICE Threshold	ALICE Threshold - HH Under 65 Years	ALICE Threshold - HHs 65 Years and Over
Harrisonburg	16,409	65%	\$60,000	\$35,000
Rockingham County	30,318	42%	\$50,000	\$35,000
Charlottesville	17,752	43%	\$45,000	\$25,000

Source: United Way ALICE Report – Virginia, 2017

When households face difficult economic conditions and cannot afford basic necessities, they are forced to make difficult decisions and take costly risks. The United Way ALICE Report states that "[f]or ALICE households, difficult economic conditions create specific problems in the areas of housing, child care and education, food, transportation, and health care, as well as, taxes, income, and savings. The choices that ALICE households are forced to make often include living in undesirable housing, or skimping on health care and healthy food, or forgoing car insurance" The report goes on to state that "[t]hese choices not only have direct impacts on health, safety, and the future of these households, but they also have consequences for their broader communities, such as reducing Virginia's economic productivity and raising insurance premiums and taxes for everyone."

## Population Projections

Population projections are often included in planning reports to help guide future plans for public services and facilities. There are many different ways to project future population, and have degrees of uncertainty. Variables such as economic growth rates, birth and migration rates, and the enrollment growth rates of JMU and EMU are subject to change from year to year and will greatly affect the accuracy of population projections. It is also important to realize that the rate and distribution of future population growth in the City can be affected in a significant way by land use policies of the City and surrounding jurisdictions. Population projections should be considered merely as a snapshot of how much the City might grow based on past growth trends. As such, they can allow the City to examine whether or not the continuation of past trends is desirable and how current land use policies might be altered to affect these trends and to move the City toward its preferred future.

The data in Figure 4-6 below was generated by using the estimated growth rate that the Weldon Cooper Center for Public Service used in their last projection for the City, which included roughly 20 percent growth during the 10 year period between 2010 to 2020, 14 percent growth between the ten year period from 2020 to 2030, and about 11 percent growth between the ten year period from 2030 to 2040.

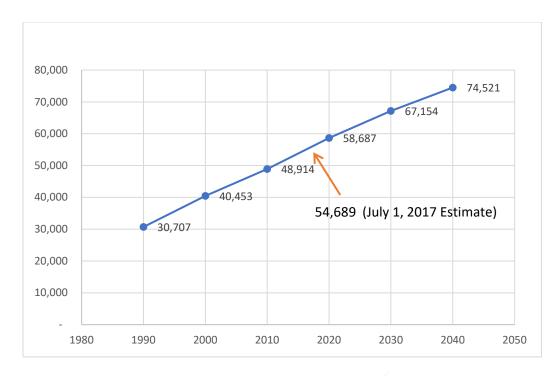


Figure 4-6. Harrisonburg Census and Projected Population

Source: U.S. Census Bureau; Weldon Cooper for Public Service, July 1, 2017 estimate and June 2017 projections

Harrisonburg's population figures include students from both universities in the City. The student population plays a significant role in the City as many of our services, infrastructure needs, business needs, and recreation and other necessities are impacted by that demographic. As such, when developing City population projections, consideration has been given to the projections for student enrollments at the universities. EMU with an enrollment in Fall 2017 of approximately 1,530 students, is not projected to experience significant growth in the foreseeable future. The information shown in Table 4-12 and visually depicted in Figure 4-7 and Figure 4-8, was provided by the State Council for Higher Education for Virginia (SCHEV), and presents JMU's projected enrollment trends for all students for the listed years.

Table 4-12. James Madison University and Eastern Mennonite University Headcount Enrollment On/Off Campus, All Students

		Actual*				Projections**				
		2015	2016	2017	2018	2019	2020	2021	2022	
JMU	On-Campus	6,210	6,304	6,454	6,567	6,704	6,825	6,957	7,082	
	Off-Campus	14,645	14,923	15,382	15,721	16,141	16,908	16,908	17,286	
	Total	20,855	21,227	21,836	22,288	22,845	23,866	23,866	24,368	
EMU	On-Campus	565	585	477	361	310	236	236	177	
	Off-Campus	1,130	1,188	1,053	907	844	751	751	678	
	Total	1,69	1,773	1,530	1,749	1,788	1,872	1892	1,921	

Source: State Council of Higher Education for Virginia, 2017 Fall Headcount Enrollment \*Updated annually, \*\*Update biennially

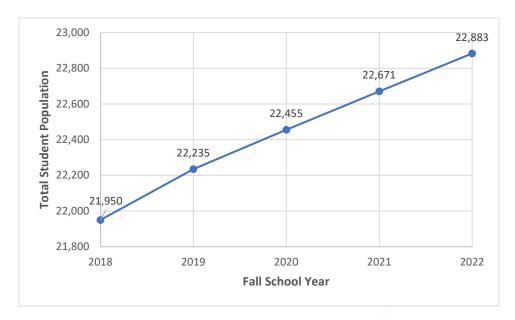
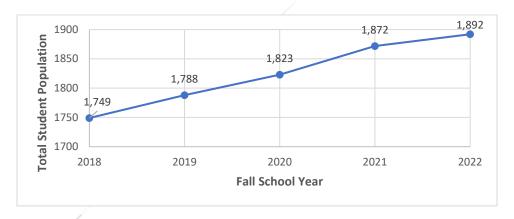


Figure 4-7. James Madison University Total Student Projections

Source: State Council of Higher Education for Virginia, 2017 Enrollment Projections



**Figure 4-8. Eastern Mennonite University Student Projections** 

Source: State Council of Higher Education for Virginia, 2017 Enrollment Projections

192	Chapter	Resources	5						
193	State	Council	of Hi	gher	Education	for	Virginia,	Enrollment	Projections,
194	http://re	search.sche	v.edu/apps	/info/Re	ports.Guide	-to-the-Enr	rollment-Pro	<u>iections-and-Deg</u>	gree-
195	Estimates	s.ashx							
196	Universit	y of Virginia	, Demogra	phics Re	esearch Gro	up, "Pover	ty and posts	econdary stude	nts in college
197	towns,"	March 20	16, <u>http:/</u>	<mark>//demog</mark>	raphics.coor	percenter.c	org/files/201	6/12/CenusBrief	Students-in-
198	Poverty.p	<u>odf</u>							
199 200	U.S. Census Fact Finder, <a href="https://factfinder.census.gov/">https://factfinder.census.gov/</a> United Ways of Virginia, ALICE (Asset Limited, Income Constrained, Employed) Virginia Study of Financial Hardship, <a href="https://uwhr.org/ALICE">https://uwhr.org/ALICE</a>								
201	Hardship	, <u>nttps://uw</u>	nr.org/ALIC	<u>JE</u>					
202	Weldon	Cooper	Center	for	Public	Service,	Virginia	Population	Estimates,
203	http://de	mographics	.coopercer	nter.org/	virginia-pop	<u>ulation-est</u>	imates/		
204	Weldon	Cooper	Center	for	Public	Service,	Virginia	Population	Projections,
205	http://de	mographics	.coopercer	nter.org/	virginia-pop	ulation-pro	jections/		
206									